



University of Technology Sydney

# **Building Management Innovation Capability in Large Rail Organisations**

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## **Certificate of Original Authorship**

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as part of the collaborative doctoral degree and/or fully acknowledged within the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

A handwritten signature in black ink, appearing to read 'Matthew Rathinam', with a stylized, cursive script.

Matthew Rathinam

Date: 05 November 2017

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## **Abstract**

Innovation is the implementation of a new or significantly improved product, service, process or marketing method, or a new organisational method in business practices. Management innovation, which has recently emerged in contemporary scholarship as a new type of innovation, refers to the invention and implementation of a change to management practice, processes, structures or techniques that are new to the state of the art and help achieve organisational goals.

The innovation capacity of public service organisations is under-researched particularly in the area of management innovation. Lack of innovation in public sector rail organisations in particular is attributed to a risk averse culture, regulatory red tape, cost cuts, change resistance, bureaucratic barriers, safety as the key focus, inadequate funding for innovation and cultural barriers to innovation. To address this gap, this thesis investigates how to develop management innovation capability to improve rail organisation performance and provide better rail services to customers.

Implementing management innovation requires multiple capabilities which are discussed in leadership and organisational theories. However, the innovation capabilities in these theories overlap in various stages of innovation which makes the practical application of management innovation difficult. Alignment of capabilities to various stages of management innovation can enable large rail organisations to understand and build capabilities to initiate and implement management innovation.

This research focused on how to build management innovation capabilities in large rail organisations in Australia using a mixed methodology of qualitative and quantitative research. A theoretical model for a Management Innovation Capability Framework was developed and three case studies in safety, maintenance and customer service were selected, with one from each of the participating large rail organisations in Sydney, Melbourne and Brisbane. The case studies were eliminating level crossing incidents, establishing a centre of excellence in rail maintenance and introducing a customer service model. Semi-structured in-depth interviews were conducted with 36 executives, general managers and senior managers to understand the management innovation capabilities in the case studies, followed by quantitative survey research

with 70 participants, mostly executives and general managers, in the three participating organisations.

The research started with three sets of capabilities including driving, developing and diffusing capabilities aligning with an input, process and output model. However findings from the three case studies suggested that five sets of capabilities including discovering, driving, developing, deploying and diffusing capabilities are a better model to assist large rail organisations at various stages of management innovation from initiation to implementation. Descriptive analysis and confirmatory analysis using structural equation modelling were conducted to validate the research model.

Aligning these stages into a framework, the research provides theoretical and empirical underpinning for the application of the Management Innovation Capability Framework to large Australian rail organisations. The Management Innovation Capability Framework can help not only managers in large rail organisations but also managers in any other similar large complex public sector organisations to understand the enabling capabilities required for each stage of management innovation, and to successfully implement and maintain a management innovation program to resolve major problems and to realise significant opportunities.

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